Carnegie Mellon.` STEINBRENNER INSTITUTE for Environmental Education & Research



Rubin Shares in Nobel Prize



Professor Ed Rubin, the Alumni Professor of Environmental Engineering and Science, jointly appointed in the Engineering & Public Policy and Mechanical Engineering Departments, shares in the Nobel Peace Prize extended to the Intergovernmental Panel on Climate Change (IPCC) and Al Gore. Dr. Rubin served as a member of the IPCC Working Group III assessment reports. "This work," according to Ogunlade Davidson and Bert Metz, Co-Chairs of IPCC Working Group III, "has provided the foundation for the current recognition of IPCC as an authoritative voice on the climate system, the impacts

of climate change and ways to avoid it." Professor Rubin was the coordinating lead author of the IPCC report on carbon capture and storage.

Professor Rubin's research deals with technical, economic and policy issues related to energy and the environment. One major focus is on design and analysis of environmental control options for electric power systems. Research sponsored by the U.S. Department of Energy has developed the Integrated Environmental Control Model (IECM) - a model widely used for engineering and economic *Continued on page 5...*

The [Neglected] Mighty Mississippi

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The U.S. Environmental Protection Agency must take a more aggressive leadership role in implementing the Clean Water Act if water quality in the Mississippi River and the northern Gulf of Mexico is to improve, says a new report from the National Research Council committee chaired by David A. Dzombak, Walter J. Blenko, Sr. Professor of Environmental Engineering and Faculty Director of the Steinbrenner Institute for Environmental Education and Research. EPA has failed to use its authority under the act to adequately coordinate and oversee state activities along the Mississippi and

ensure progress toward the act's goal of "fishable and swimmable" waters, the report says. States along the river also must be more proactive and cooperative in their efforts to monitor and improve water quality.

In particular, greater effort is needed to ensure that the river is monitored and evaluated as a single system, said the committee chaired by Dzombak. The 10 states along the river corridor all conduct their own programs to monitor water quality, but state resources devoted to these programs vary widely, and there is no single program that oversees the entire river, making it an "orphan" in terms of monitoring and assessment of its water quality, the report says. It recommends that EPA take the lead in coordinating these tasks along the river. *Continued on page 3...*



Journalists on Tour

2007 Steinbrenner Journalist Fellows



Pictured from left to right: Deborah Lange, Bette Hileman, John Sullivan, Kara Sissell, and Dave Dzombak.

The Steinbrenner Institute hosted three top journalists June 18–21 at its third annual environmental media fellowship. The national journalists included Bette Hileman, senior editor of Chemical and Engineering News; Kara Sissell, senior editor of Chemical Week; and John Sullivan, editor of Environmental News. The editors spent four days on the Carnegie Mellon campus, meeting faculty and getting a personal look at some of the University's environmental research.

"The fellowship enables leading science journalists to broaden and deepen their knowledge of environmental issues, and provides a unique opportunity for Carnegie Mellon faculty to share their research findings with a group that can communicate those findings widely," said Dave Dzombak, faculty director of the Steinbrenner Institute and the Walter J. Blenko Sr. Professor of Environmental Engineering.

The editors met informally with researchers in labs and in the field. Their interviews spanned topics ranging from green design and green buildings to air and water quality, risk management, and alternative energy issues. The journalists also visited the National Energy Technology Laboratory (NETL) in Pittsburgh, where Carnegie Mellon faculty are working collaboratively on a variety of research projects with NETL scientists and engineers.

"The faculty have been great about participating and sharing their broad range of work with media," said Deb Lange, Executive Director of the Steinbrenner Institute. "We really want journalists to go away with the knowledge that they can use Carnegie Mellon as a resource for stories." For more information contact Chriss Swaney at swaney@andrew.cmu.edu and visit The Steinbrenner Institute website at www. http://www.cmu.edu/steinbrenner/Initiatives/.

Urban Challenges: National Vacant Properties Conference

The September 24 & 25 Reclaiming Vacant Properties: Strategies for Rebuilding America's Neighborhoods, held in Pittsburgh and sponsored by the National Vacant Properties Campaign, was the first national conference focusing on helping realize the potential of vacant properties as community assets.

The Western Pennsylvania Brownfields Center at Carnegie Mellon served on the Host Committee for the conference and facilitated two sessions—"The Overlap and Synergies Between Vacant Properties and Brownfields" and "The Tale of Two Sites: SouthSide Works & The Waterfront," a mobile session that compared and contrasted two brownfield developments in the Pittsburgh area. The two-day conference brought together practitioners, policymakers, and concerned citizens from throughout the country to share model practices and problem solve. For more information visit http://www.vacantproperties.org/reclaimingconference.html

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Cool School

Sierra Magazine has ranked Carnegie Mellon University the 10th "Coolest" School in its November/December 2007 cover story for the University's efforts against global warming and toward creating a greener campus. Sierra Magazine is the national magazine of the Sierra Club, the largest grassroots environmental organization in the United States.

The magazine (http://www.sierraclub.org/sierra) recognizes the work of colleges and universities, as well as their student bodies, against environmental problems. This is the first year the magazine has conducted a survey on college and university green practices. They took into account everything from university green-building policies and clean-energy purchases to campus food quality and bike facilities.

Carnegie Mellon was named a "School that Gets It" for several green initiatives on campus, including the University's student-designed green roofs atop The Posner Center and Hamerschlag Hall, the nation's first eco-friendly residence hall, New House, and the Collaborative Innovation Center, which features a modular raised-floor system that doubles the amount of fresh air that circulates throughout the building. For more information visit www.cmu.edu/steinbrenner/News.

Notes from Qatar

Steinbrenner Institute Executive Director Deborah Lange visted the Carnegie Mellon Campus in Education City and while there participated in a panel on the environment. Below is an excerpt about the panel from The Gulf Times...

The environmental consequences of Qatar's rapid industrialisation were discussed by experts from the Education City and around the world. Timothy Beach, Patrick Linke, Deborah Lange, Peter Martin and Renee Richer were the panelists each representing the branch campuses at Education City in the discussion that was sponsored by the Centre for International and Regional Studies (CIRS) and the Georgetown University School of Foreign Service in Qatar (SFS-Qatar)... Deborah Lange of Carnegie Mellon University in Pittsburgh described the leadership role the University is taking in creating and promoting sustainable business practices. "In addition to promoting environmentally friendly operations at the University, Carnegie Mellon also integrates environmental awareness throughout the undergraduate and graduate programmes," Lange said. For the full Gulf Times article please visit http://www.cmu.edu/steinbrenner/News.

Mississippi Water Quality

Continued from page 1

"The limited attention being given to monitoring and managing the Mississippi's water quality does not match the river's significant economic, ecological, and cultural importance," said Dzombak. "In addressing water-quality problems in the river, EPA and the states should draw upon the useful experience in the Chesapeake Bay watershed, where for decades the agency has been working together with states surrounding the bay to reduce nutrient pollution and improve water quality. EPA should demonstrate similar leadership for the Mississippi River."

The report evaluates efforts to implement the Clean Water Act along the Mississippi, which flows 2,300 miles from Minnesota's Lake Itasca to the Gulf of Mexico. The river is used by millions of people along a 10-state corridor for drinking water, commercial shipping, and recreation; it also is home to many valuable ecosystems, all of which depend on the river's water quality.

The study was sponsored by the McKnight Foundation of Minneapolis. The National Academy of Sciences, National Academy of Engineering, Institute of Medicine, and National Research Council make up the National Academies. To view a presentation on the report visit www.cmu.edu/steinbrenner/facultypresentaations/. Copies of Mississippi River Water Quality and the Clean Water Act: Progress, Challenges, and Opportunities will be available from the National Academies Press; tel. 202-334-3313 or 1-800-624-6242 or on the Internet at http://www.nap.edu.

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Media Bootcamp





Pictured from left to right: John Byrne, Business Week; James Hagerty, Wall Street Journal; Jennifer C. Yates, Associated Press; Seth Bauer, National Geographic.

"Blogs," share alot in common with the *Talmud*," declared Seth Bauer, Editorial Director of National Geographic's *Green Guide*. "There's the text, the comments on the text, and the comments on the comments." Bauer was the first of four panelists—James R. Hagerty, *Wall Street Journal* Reporter; John Byrne, *Business Week* Executive Editor; and Jennifer Yates, Associated Press Bureau Chief—to muse over the influence and potential of online media and the future of traditional printed news forums. The October 24 Bootcamp, "Harnessing the New Web: How Online Reporting is Changing the Media," was hosted by The Steinbrenner Institute and the College of Engineering to help faculty and researchers better understand how the media uses online reporting tools to cover news.

The panelists explained to the approximately 60 attendees how online outlets have changed the way reporters work. While sources historically have driven news stories, now reporters are expected to come to the interviews with knowledge and the sources support a thesis the reporter has already developed. "Sources are now the icing on the cake," according to Bauer, who prefers to scour the web for academics already blogging about their research rather than hearing from a University press office.

It's important for academics to embrace new ways to broadcast their research, according to John Byrne, Executive Editor of *Business Week*. Byrne sent the 60 attendees off with a strong prediction, "The newspaper industry will go the way of big steel in this country." With that the panelists offered tips for academics on how to ready their websites to make them press-friendly (see the blue box below).



A Recipe for Remaking a City

The Heinz Endowments has awarded the University \$300,000 to create a Remaking Cities Institute (RCI) at the School of Architecture that will bring university, industry and community leaders together to make responsible, sustainable changes to Pittsburgh neighborhoods. The RCI will use a multidisciplinary model to aid decisionmaking that involves aspects of land use, zoning, transportation, mixed-use development and neighborhood design together with urban geography, economics and policy. In the next year, the RCI will use the grant to create a vision for the former LTV site–178 acres along the Monongahela River in Hazelwood–and explore its potential for advancing sustainable development for neighboring communities and the region.

"The Remaking Cities Institute is being created to ensure and expand the education, community-visioning, and research efforts of Carnegie Mellon, and to strengthen its partnerships in the Pittsburgh region to catalyze the revitalization of urban regions, neighborhood by neighborhood," said Luis Rico-Gutierrez, Associate Dean of the College of Fine Arts and Director of the RCI. "Pittsburgh can become a model that demonstrates the proposition that university-industry-community collaborations can foster sustainable change economically, ecologically and culturally." For more information visit http://www.arc.cmu.edu/cmu/rci/index.jsp.

Lauded by Laudise

H. Scott Matthews, Associate Professor of Civil and Environmental Engineering and Engineering and Public Policy recevied the prestigious Laudise Award for outstanding research in industrial ecology from the International Society of Industrial Ecology in Toronto.

"Scott is an outstanding young scholar, and this award is designed to recognize researchers under age 40 who are making a difference in helping us all get it right when it comes to industrial ecology," said Thomas Graedel, past president of the International Society of Industrial Ecology. Graedel, a professor of industrial ecology at Yale University, said Matthews is the third recipient of the award, which is named for the late AT&T Bell Lab researcher Robert Laudise.

"Scott's work is a perfect match for this award," said Chris Hendrickson, the Duquesne Light Professor of Civil and Environmental Engineering at Carnegie Mellon. "His research has covered everything from use of alternative fuels like switchgrass to development of a Web site created to track life-cycle assessments of everyday activities, like the amount of pollution created from eating a hamburger to mowing the lawn," Hendrickson said. In addition to his work on life-cycle assessment tools, Matthews is a recognized expert on the environmental impacts of information and communication technology products, beginning with a study on personal computer disposal he conducted in 1991 as an undergraduate at Carnegie Mellon. For more information please visit the Green Design website at http://www. ce.cmu.edu/GreenDesign/.

Rubin shares in Nobel Prize, Cont'd from page 1.

analysis of current and advanced power generation systems and environmental control options. Recent model applications include a comparative assessment of coal combustion, natural gas combined cycle, and integrated coal gasification combined cycle (IGCC) power generation systems with and without CO2 capture and sequestration as a potential measure to mitigate global climate change. A stochastic simulation capability also yields probabilistic measures of performance, emissions and costs, providing insights important for research management and assessments of technological risks and benefits of advanced technologies.

Professor Rubin also is actively involved in national and international assessments of technologies and policies related to energy R&D planning, coal utilization, and climate change mitigation. For more information visit www.cmu. edu/steinbrenner/news.

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SOLAR DECATHLON 2007

This Fall marked the third year that a team of Carnegie Mellon students joined 19 Universities across the country on the Washington Mall to showcase the energy efficent, solar powered house that they designed and built in Pittsburgh before deconstructing and rebuilding it in DC for judging. The Carnegie Mellon house, TriPod, promoted a "plug and play" philosophy; the rooms of the house can be easily upgraded or rearranged to suit the owner. The house has been installed permanently at the Powdermill Nature Reserve in



Rector, PA. On November 2nd, The Steinbrenner Institute welcomed the Solar Decathlon Team home with a reception to honor their extraordinary work. Enjoy the photos from the reception and hear what the faculty and staff involved had to say about this year's team.



"The goals that drive Carnegie Mellon to participate in the competition are based on education, the education of our students and the education of the public at large. On one hand I know that the experience gained by faculty, staff and students will prove invaluable in their future careers. On the other, the public now know that sustainability looks like a real house," said Professor Luis Rico-Gutierrez.

"This year's team was the most talented, most dedicated and hardest working team that I have had the privilege of working with. They have spoiled me for future design/ build efforts," said Professor Stephen Lee.









Carnegie Mell applauds Solah Deez For Their Tireless

"I was extremely proud to visit the Carnegie Mellon solar house on the National Mall on Sunday October 14, as I know were the Carnegie Mellon alums who joined me in visiting the Solar Decathlon that day. Our participation in the Solar Decathlon, and our solar houses, for me have become iconic emblems of Carnegie Mellon, right up there with robots and hollywood shows by CFA alums," said Dr. David Dzombak, Faculty Director of the Steinbrenner Institute.

"I want to take this moment to tell you how proud I am of you for engaging with the Solar Decathlon event and for coming out the other end, a little older, and more tired I know, but enriched by all that it was. For 20 months I watched you work very hard. At the competition it was an honor to walk side-by-side with you when the bagpipes introduced us in front of the national crowd. I cannot express to you how proud I am of all of you for collaborating across disciplines and your patience to work with one another even when things were tough. The Solar Decathlon is a true Carnegie Mellon enterprise, bringing together the best endeavors and ambitions of many different disciplines into an impressive and valuable synthesis of process and product," said Hilary Robinson, Dean of the College of Fine Arts.



Homecoming 2007

"Americans own 1.17 cars per licensed drivers," according to Dr. Lester Lave, Co-Director of the Carnegie Mellon Electricity Industry Center. This sobering fact was one of many offered by faculty at the October 27 homecoming panel, "Carnegie Mellon Tackles Global Climate Change," moderated by alumna Marilyn Bracken, [BS Chemistry, '57]. A room full of 70 engaged



alumni eagerly listened as Lave and fellow panelists Dr. M. Granger Morgan, Director of the Climate Decision Making Center, and Dr. Edward Rubin, Professor of Engineering and Public Policy and Mechanical Engineering discussed the ways global warming impacts our lives. The message was clear: global climate change is happening and our daily practices contribute to this reality. Alumni in attendance also received



a handout from moderator Marilyn Bracken with suggestions on how each person may reduce their contribution to global climate change. The Homecoming Climate Change Panel followed a session led by Dr. David Dzombak

on the environmental research and activity across Carnegie Mellon campus.

A Few Ideas For Individuals:

-Change the five lights you use most often to CFL bulbs.
-Turn down your water heater thermostat to 120 degrees.
-Check your tire pressure. Underinflated tires reduce fuel economy.
-Invest in "Green" funds and clean energy stocks.





View the presentations made by Professors Morgan, Rubin, and Lave on the Steinbrenner website www.cmu.edu/ steinbrenner/facultypresentations



Happy Birthday Rachel Carson

Edward O Wilson told the more than 300 attendees of the Rachel Carson Centennial Legacy Conference that while he never met Rachel Carson in person, he was honored that his contemporary was able to use his research on unsuccessful federal efforts to eradicate the invasive fire ant species through the mass application of dangerous pesticides for her groundbreaking 1962 book, *Silent Spring*.



The 78-year old Wilson, expressed hope for the future, "I think it's the last gasp of what I call the 'ignorati,' people in positions of influence who

ought to know better. I think their influence is dwindling." Dr. Wilson's talk kicked off the Septemeber 29 "Sustaining the Web of Life in Modern Society" Legacy Conference, which was co-sponsored by the Steinbrenner Institute for Environmental Education \mathcal{C} Research and was the third event in the Rachel Carson Homestead Association's centennial celebration.

The day-long celebration included presentations by Carnegie Mellon's President Jared Cohon, M.



Granger Morgan, and Indira Nair, as well as Clean Air/Cool Planet's Jennifer Schroeder, Rachel Carson biographer Linda Lear, Oceana's James Ayers, United Steelworkers' Diane Heminway, The Natural Step's Anthony Cortese, and the University of Washington's Edward MIles.

Upcoming Rachel Carson Centennial Event: May 25, 2008 Rachel's Sustainable Feast: Local Food from Local Farms For more information visit www.rachelcarsonhomestead.org.

Green Chemistry Sees the Green

Carnegie Mellon University has received more than \$22 million in grants from The Heinz Endowments, one of the largest private foundation grants in the University's history. The grants will be used to strengthen the H. John Heinz III School of Public Policy and Management, expand teaching and research in green chemistry and sustainability and encourage more innovations in robotics and computer science. A major portion of The Heinz Endowments' grants - \$8.5 million - will be earmarked for the university's work in green chemistry. The grant will be dedicated to an endowment increase and program expansion. Carnegie Mellon Thomas Lord Professor of Chemistry Terry Collins is a leader in the green chemistry field.

"Thanks to the efforts of Terry Collins and his colleagues, Carnegie Mellon has long been a leader in green chemistry, and The Heinz Endowments have been an important partner in this work," said Vice President of Research Richard McCullough. "This latest gift from the endowments will help secure the University's and our region's robust position in sustainability environmental science and green chemistry."

"Green chemistry and the promise of sustainable products and technology have the potential for changing the world's environmental practices, with Pittsburgh as the starting point," Cohon said. "We are deeply grateful to the Heinz Endowments for sharing this vision with us." For more information visit http://www.chem.cmu.edu/groups/Collins/.

Carnegie Mellon University graduate engineering students Shahzeen Attari, Ines Margarida Lima de Azevedo, Benjamin Flath and Constantine Samaras won a letter-writing competition called "Tomorrow's Energy Ambassadors, Managers and Scholars" (TEAMS).

The contest, sponsored by Johnson Controls Inc., asked students to demonstrate their awareness of important energy and sustainability issues in a letter challenging the current field of presidential candidates to clarify their own positions on these topics. The students' winning letter appeared as a full-page ad in the November 20 Pittsburgh and Washington, D.C., regional editions of USA Today.

"We challenged the students at more than 200 member schools of the Association for the Advancement of Sustainability in Higher Education," said Clay Nesler, vice president of global energy and sustainability at Johnson Controls, a global leader in integrating technologies and products to create smart environments.

"The letter from Carnegie Mellon students, in particular, demonstrates that this generation is both inspired and impatient. We congratulate them for outlining an informed and timely query to the candidates," he added.

In addition to having its letter published in USA Today, the Carnegie Mellon team will receive a \$10,000 check for the Steinbrenner Institute Graduate Fellowship fund from Johnson Controls. The team also will receive a \$2,500 grant from Johnson Controls and will be invited guests at the 2008 Energy Efficiency Forum, June 10–11 at the National Press Club



in Washington, D.C. The full text of the letter is below and at www.cmu.edu/steinbrenner.

From left to right: Benjamin Flath, Constantine Samaras, Shahzeen Attari, Inês Lima Azevedo, and Dave Dzombak

An Open Letter to the Field of 2008 Presidential Candidates Dear Candidates,

Providing sustainable energy is a critical challenge facing society today and your position as the next president has the potential to substantially impact future generations. However, energy and sustainability issues have received little attention on the campaign trail. Our current energy system predominately uses fossil fuels that emit carbon dioxide and other greenhouse gases. Many scientists recommend reducing these emissions to 80% below 1990 levels by 2050 in order to prevent the globally irreversible consequences of climate change. Energy used by transportation, homes and businesses, and industry each constitute about one third of the overall United States carbon emissions. Emissions reductions can be achieved through efficiency and conservation, proliferation of low-carbon energy, and stronger leadership in national and international carbon policy. In order to move the nation towards a less carbon-intensive system, it is imperative that you detail your plans to transition the country to an economically competitive and environmentally sustainable energy future.

In every campaign season, stump speeches inevitably include promises of reducing oil dependence and developing a sound energy policy. In the shadow of these promises, oil imports continue to rise and our transportation system remains overwhelmingly powered by petroleum. How should we rapidly diversify our transportation fuels to nextgeneration biofuels and electric-powered travel?

As the next president, you can direct effective energy policies that encourage efficiency and conservation in homes, businesses, and industries. Reducing energy consumption in these areas would lower energy bills and enhance American competitiveness in the global marketplace. What types of incentives and regulations would you create to promote conservation and efficient energy use?

Advanced energy technologies will require a large investment in research and development to encourage market adoption. Innovative entrepreneurs are ready to introduce next generation energy systems, and policies that pull new energy technologies to the market would kick start the transition. We need to integrate these smart technologies into the electricity grid and make low-carbon power plants the status quo. Renewable energy sources, such as wind and solar power, only provide about 1% of our electricity supply. We envision a low-carbon energy portfolio that will require a massive scale-up of renewable energy, solutions to address nuclear waste disposal, as well as capturing and storing greenhouse gases from conventional power plants. What steps will you take to move us towards this low-carbon future?

Reformulating our energy policy will also require a strong and integrated carbon policy. Even though some states are unifying their efforts to curb carbon emissions by adopting regional initiatives, these are few and far between. Although voluntary or regional efforts are helpful in reducing emissions, federal regulations are imperative in order to meet the national targets needed to avoid irreversible climate change. The federal strategies that can be pursued range from market-based mechanisms, such as cap-and-trade schemes, to a single carbon tax, to an individual carbon allowance, like a "carbon credit card." Which strategies will you pursue to develop a consistent federal policy to lower carbon emissions?

Creating an integrated carbon mitigation and sustainable energy policy would ensure the ability of future generations to meet their needs. Currently two billion people in the world have little or no access to electricity. Access to energy would improve public health and better the standard of living among the world's poorest citizens. Providing technologies that produce sustainable energy at the local level will empower communities and alleviate pressure on energy supplies. The technologies created here can considerably improve living conditions in developing countries. How do you plan to encourage the technology transfer necessary to promote global environmental stewardship?

People perceive that sustainable energy and economic growth are incompatible. However, this view fails to account for the long-term effects of climate change. The Stern Review, a recent report on this subject, states that the cost of inaction is likely to range from 5-20% of global GDP per year in the long term compared to the costs of preventative action at merely 1% of global GDP. By investing in a sustainable energy system, we would also create a new local "green-collared" economy. What specific strategies would you use to facilitate green economic growth?

Currently, America has one of the largest carbon dioxide emissions per capita. Countries like India and China are adopting our consumption culture and could increase their per capita carbon dioxide emissions to mimic ours. Tackling the climate change problem under these conditions will become a daunting task. Our policies at home will have a strong cascading effect on international energy and carbon policies. You need to encourage green globalization in order to curb emissions and provide energy to the rapidly growing world population. America is positioned to lead on this front and change the course of the future. As president, your next four years are crucial in shaping the evolution of humanity. The world is yearning for an alternative and sustainable solution. Change our course and lead the world. We are waiting.

Sincerely,

Shahzeen Attari

Inês Lima Azevedo

Benjamin Flath

Constantine Samaras

Power Shift

The Steinbrenner Institute sponsored a group of 25 students to participate in Power Shift 2007, a national youth summit on global warming November 2-5, 2007 at the University of Maryland, College Park. The summit culminated with a rally on Capitol Hill. The conference was developed on the premise that "the actions we take today to reduce global warming pollution will have a major impact on the world that today's youth will inherit." Carnegie Mellon student Alicia Marrie wrote to The Steinbrenner Insitute about her experience at the summit.

Meetings were scheduled throughout the day to allow the 3,000 students to lobby their senators and representatives. A group of about 30 students from Pennsylvania, including a hefty number of

Thank you so much for helping to send me and other students to Power Shift. It was absolutely amazing. We were able to bring 17 CMU students to be part of the 5,500 student from all over the country who attended Power Shift. It was great to see that many student activists gathered in one place to discuss solutions to global climate change.

The entire weekend was literally flooded with things to do. Saturday, there were three panel sessions with about 25 different panels to choose from for each session. The panels ranged from discussions of renewable energy sources to a discussion about global warming politics led by Ralph Nader. Sunday, there were workshop sessions with even more choices. Throughout the weekend there were also slots scheduled where students from the same region of the country could gather and discuss potentially working together on projects to stop global warming.

By far, the best part of Power Shift was Lobby Day on Monday, Nov 5. Nearly 3,000 students gathered on the West Lawn in front of the Capitol Building to rally for legislation to control global warming emissions and promote the use of renewable energy sources to power our country. CMU students assembled in Senator Casey's office to let him know that the youth of Pennsylvania care about global climate change and that we want to see congress taking action to fight global warming.

I, along with Sustainable Earth (their members made up over half of CMU's attendence), have come back to Carnegie Mellon, inspired to be active on this issue and to begin making changes on our campus. We have already begun to plan a Focus the Nation event. On January 31, 2008, universities all over the country are holding a teach ins, lectures, and making a statement about the need to make change to fight global warming. We are very excited to be able to take what we have learned, and the momentum we have gained at Power Shift and use it to better Carnegie Mellon.

Again, thank you so much for supporting this trip. I and all who attended are incredibly appreciative.

Sincerely, Alicia Marrie [Chemical Engineering 2010]

For more information visit www.powershift07.org



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